

REMARKS

Reconsideration of the instant application is respectfully requested. The present amendment is responsive to the Office Action of March 17, 2006, in which claims 1-19 are presently pending. Of those, claims 1, 11, 13 and 18 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,751,516 to Richardson. Claims 2 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richardson, in view of U.S. Patent 5,708,371 to Koyama. Claims 3-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richardson, in view of Koyama, and further in view of U.S. Patent 4,555,626 to Suzuki. In addition, claims 8-10 have also been rejected under 35 U.S.C. §103(a) as being unpatentable over Richardson, in view of Koyama and Suzuki, and further in view of U.S. Patent Publication 2002/0162339 of Harrison, et al.

Claims 14-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richardson, in view of Koyama and Suzuki, and further in view of U.S. Patent 6,372,627 to Ring, et al. Finally, claims 17 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richardson, in view of Koyama and Suzuki, and further in view of U.S. Patent 6,863,787 to Huynh, et al. For the following reasons, however, it is respectfully submitted that the application is now in condition for allowance.

Claim 11 has been amended to more specifically define the relationship between the sample and the thermoelectric element associated with the FIB tool. Claim 1 as originally filed already recites the structural relationship between the base member, the thermoelectric module and the sample. That is, the thermoelectric module is disposed over the base module and the sample is mounted on the thermoelectric module. In addition, claim 4 has been amended as set forth above to more particularly point out that the electrical connector (514) is disposed through a vacuum chamber wall (516) and into an interior vacuum section (518) of the FIB apparatus. Support for this amendment is found at least in Figures 5-7 and in paragraph [0035] of the specification.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

A review of the Richardson reference reveals that, contrary to the instant claims, the support block 51 (with thermal control means) is not disposed over the base member 52, but rather vice versa. Further, the three-dimensional part 19 (sample) is not mounted upon the support block 51 (i.e., thermoelectric module), but rather directly upon the base member 52. Therefore, because the elements disclosed in Richardson are not arranged as recited by independent claims 1 and 11, claims 1, 11, 13 and 18 cannot be anticipated by Richardson. Accordingly, Applicants traverse the §102(e) rejections thereto and respectfully submit that each claim dependent therefrom is also allowable.

As to the substantive §103 rejection of claim 4, the Applicants also respectfully traverse the same for the additional reason that Suzuki ‘626 does not in fact teach the additionally claimed element of electrically coupling a thermoelectric module to a current source through an electrical connector disposed through a vacuum chamber wall of an FIB tool and into an interior vacuum section 518 of the FIB tool. In the first place, Suzuki is directed to shielding radiation in a light detector/sensor assembly. (Col. 1, line 5- col. 2, line 21). As such, a skilled artisan has no motivation to combine cooling techniques of an FIB processing apparatus with cooling techniques associated with detecting devices as taught in Suzuki. Moreover, even if the teachings of Richardson and Suzuki were combined, Suzuki still fails to teach that the electrical connector (presumably “hermetically shielded lead wires 15” in Fig. 1 of Suzuki) is disposed

through a vacuum chamber wall of an FIB tool and into an interior vacuum section of the FIB tool.

Notwithstanding the fact that the Suzuki apparatus is not an FIB processing device, there is no teaching or suggestion in the reference that the “connector” 15 is disposed through a vacuum chamber wall and into an interior vacuum section. Although it is stated in Suzuki that the enclosed volume 16 is kept in a vacuum (col. 3, line 67), it is also seen from the cut-away view of the chamber 16 that connectors 15 themselves do not penetrate through the base plate 9 so as to be disposed through a vacuum chamber wall and into an interior vacuum section 16. In Suzuki, a “vacuum chamber wall” would necessarily constitute one of: the base plate 9, the enclosing case 13 or the light-transmissive window 14. Stated another way, since connectors 15 do not penetrate into vacuum section 16, Suzuki fails to provide each of the missing claimed elements of Richardson and the other cited references of record.


In contrast, claim 4 of the present disclosure recites a solution to conventional commercial FIBs that have previously failed to incorporate sample temperature control features. (Specification, paragraphs [0023], [0032]). Accordingly, for this additional reason, the §103 rejection of claim 4 is also traversed.

Therefore, it is respectfully submitted that each of the outstanding rejections of claims 1-19 have been overcome, and it is respectfully requested that the same be withdrawn.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0458 maintained by Applicants' attorneys.

Respectfully submitted,
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